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| 10/767,381 | 01/28/2004 | Ashwin J. Mathew | 03226.515001 | 4746 |
| 32615 | 7590 | 11/02/2006 | EXAMINER | |
| OSHA LIANG L.L.P./SUN 1221 MCKINNEY, SUITE 2800 HOUSTON, TX 77010 | | | KIM, PAUL | |
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2161

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/767,381

Applicant(s)

MATHEW ET AL.

Examiner

Paul Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 37 and 38 is/are pending in the application.
- 4a) Of the above claim(s) 11-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10, 37 and 38 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/28/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is responsive to the following communication: Amendment filed on 15 September 2006.
2. Claims 1-10 and 37-38 are pending and present for examination.

Response to Amendment

3. Claims 11-36 have been withdrawn.
4. Claims 37-38 have been added.
5. No claims have been amended.

Drawings

6. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
8. **Claims 1-2** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed toward "a metadirectory system" comprising of adapter

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peers and a join engine peer used for various operations, and are non-statutory because they do not encompass tangible subject matter and/or embodiments which fall within a statutory category.

The claims fail to recite a positive application of the metadirectory system such that a "useful, concrete and tangible result" would occur, but instead recite intended uses for the metadirectory system. "The claimed invention as a whole must accomplish a practical application. That is, it must produce a 'useful, concrete and tangible result'" (emphasis added). See *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02. MPEP 2106.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. **Claim 1** rejected under 35 U.S.C. 102(b) as being anticipated by Multer et al (U.S. Patent No. 7,007,041, hereinafter referred to as MULTER), filed on 2 January 2001, published on 22 November 2001, and issued on 28 February 2006.

11. **As per independent claim 1**, MULTER teaches:

A metadirectory system comprising:

a plurality of adapter peers each associated with a respective source system {See MULTER, Figures 1-8} and each for communicating data changes regarding data of defined data types {See MULTER, C6:L40-43, wherein this reads over "[t]he function of the synchronizer 104 is similar to that of the transmitter and receiver combined; the synchronizer will allow difference information Δ to be both transmitted and received"; C10:L24-26, wherein this reads over "a device engine is associated with each type of device"; and C10:L45-47, wherein this reads over "[e]ach of the device engines 862, 864, 866 and 868 is configured relative to the type of device on which it resides"}, each adapter peer communicating with other adapter peers in a peer-to-peer fashion {See MULTER, Figure 1};

a first join engine peer for communicating with adapter peers in the peer-to-peer fashion and for combining data from the adapter peers to generate data of defined data types {See MULTER, C27:L18-41, wherein this reads over "[o]nce data is extracted from a particular application, the server application object must then convert the information into the

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universal record format which can then be utilized by other server device engines to take content information into their own particular application," "[t]he universal record format is used by each server device engine to handle various tasks of encapsulating records in a common format," and "an application object can be designed to support any combination of application and binary information types"} and wherein the first join engine peer is also for performing data transformations regarding data from the adapter peers {See MULTER, C14:L33-41, wherein this reads over "[t]he device engine 860 and particularly the delta module 950 interpret data packages based on the versioning information and the mirrored data present in the application object store 920. When data is returned to the delta module 950 from the storage server 850, the delta module returns differenced data to the application object 910 for the particular application which then translates the delta information into the particular interface utilized for application 810"}; and

a first plurality of communication channels for broadcasting data changes from the plurality of adapter peers and for broadcasting the data generated by the first join engine peer, each communication channel of the first plurality of communication channels associated with a particular data type {See MULTER, C9:L30-32, wherein this reads over "the system may be used to broadcast public or private information to various device types"}.

Additionally, it would be inherent to the claimed system to have a plurality of communication channels for broadcasting changes and data from the adapter peers and the join engine peer since such communication channels are necessary to transmit data between the peers and join engine peer.

12. As per dependent claim 6, MULTER teaches:

A metadirectory, system as described in claim 1 wherein the plurality of adapter peers are each software processes {See MULTER, C8:L51-59, wherein this reads over "Generally, the system comprises client software which provides the functions of the differencing transmitter 100, differencing receiver 102, and differencing synchronizer 104 in the form of a device engine. The device engine includes at least one component particular to the type of device on which the device engine runs, which enables extraction of information from the device and conversion of the information to difference information, and transmission of the difference information to the storage server"}.

13. As per dependent claim 7, MULTER teaches:

A metadirectory system as described in claim 6 wherein the software processes each operate on a separate server system {See MULTER, C10:L24-26, wherein this reads over "a device engine is associated with each type of device"; and C11:L62-64, wherein this reads over "a device engine exists for each and every device that makes up a user's personal information network of devices in the system"}.

14. As per dependent claim 8, MULTER teaches:

A metadirectory system as described in claim 6 wherein the first join engine peer is a software process {See MULTER, C27:L18-41, wherein this reads over "[o]nce data is extracted from a particular application, the server application object must then convert the information into the universal record format which can then be utilized by other server device engines to take content information into their own particular application," "[t]he universal record format is used by each server device engine to handle various tasks of encapsulating records in a common format," and "an application object can be designed to support any combination of application and binary information types"}.

15. As per dependent claim 9, MULTER teaches:

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A metadirectory system as described in claim 1 wherein the data of the defined data types generated by the first join engine peer comprises a consolidated view of data associated with two or more other data types {See MULTEr, C12:L5-13, wherein this reads over "[t]he job of the application object is to map data from the application into a temporary or 'universal' data structure by connecting to the application via any number of standard interfaces to gain access to the applications data"; and C16:L33-38, wherein this reads over "[t]he consistent and scalable architecture of the system of the present invention for device engines is maintained by encapsulating system-dependent knowledge in a single component, i.e. the application object"}.

16. **As per dependent claim 10, MULTEr teaches:**

A metadirectory system as described in claim 1 further comprising a second join engine peer for communicating with adapter peers and the first join engine peer in the peer-to-peer fashion and for combining data from adapter peers {See MULTEr, C27:L18-41, wherein this reads over "[o]nce data is extracted from a particular application, the server application object must then convert the information into the universal record format which can then be utilized by other server device engines to take content information into their own particular application," "[t]he universal record format is used by each server device engine to handle various tasks of encapsulating records in a common format," and "an application object can be designed to support any combination of application and binary information types"} and from the first join engine peer to generate data of defined data types and wherein the second join engine peer is also for performing data transformations {See MULTEr, C14:L33-41, wherein this reads over "[t]he device engine 860 and particularly the delta module 950 interpret data packages based on the versioning information and the mirrored data present in the application object store 920. When data is returned to the delta module 950 from the storage server 850, the delta module returns differenced data to the application object 910 for the particular application which then translates the delta information into the particular interface utilized for application 810"}.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. **Claims 2-3** are rejected under 35 U.S.C. 103(a) as being unpatentable over MULTEr, in view of Becker et al (U.S. Patent No. 7,117,264, hereinafter referred to as BECKER), filed on 10 January 2002, published on 10 July 2003, and issued on 3 October 2006.

19. **As per dependent claim 2, MULTEr, in combination with BECKER, discloses:**

A metadirectory system as described in claim 1 wherein the first join engine peer is also for generating queries for data of specific data types and further comprising a second plurality of communication channels for broadcasting the queries and wherein each channel of the second plurality of communication channels is associated with a

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particular data type {See BECKER, C2:L36-42, wherein this reads over "[a] query command from an originating peer node may be received at the current peer node and response data may be communicated directly from the current peer node to the originating peer node, in response to the query command"; and C9:L34-51, wherein this reads over "[t]he query message may request, for example, information about software . . . or about files in the memory of a given target device. For example, target device 114 may send out a query data message to target devices 112, 116, 118 . . . [for] a particular file"}.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by MULTER by combining it with the invention disclosed by BECKER. The results of this combination would lead to a metadirectory system wherein the join engine peer may generate and broadcast queries for data of specific data types.

One of ordinary skill in the art would have been motivated to do this modification such that the join engine peer may broadcast queries for specific data types to multiple adapter peers in the peer-to-peer environment.

20. **As per dependent claim 3**, MULTER, in combination with BECKER, discloses:

A metadirectory system as described in claim 2 wherein adapter peers respond to the queries by broadcasting data over one or more communication channels dedicated to responding to the queries of the first join engine peer {See BECKER, C9:L64-66, wherein this reads over "[t]he peer-to-peer protocol may allow any one of target devices to broadcast or receive data messages"; and C12:L16-23, wherein this reads over "target device may perform client functions such as sending out queries, including ping queries and receiving responses, including pong responses"}.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by MULTER by combining it with the invention disclosed by BECKER. The results of this combination would lead to a metadirectory system wherein the adapter peers would respond to the queries of the join engine peer by similarly broadcasting the response over the communication channel(s).

One of ordinary skill in the art would have been motivated to do this modification such that the adapter peers may provide a response to the queries of the join engine peer, such that the response would be used to synchronize and consolidate information in the distributed Enterprise Information System.

21. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over MULTER, in view of BECKER, and in further view of Official Notice.

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22. **As per dependent claim 4**, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the join engine peer generate the query in response to a data change received from an adapter peer such that the join engine may receive further data which may need to be synchronized and consolidated accordingly.

23. **Claims 37 and 38** are rejected under 35 U.S.C. 103(a) as being unpatentable over MULTER, in view of Official Notice.

24. **As per dependent claims 37 and 38**, it would have been obvious to one of ordinary skill in the art at the time the invention was made to partition the join engine peers into multiple join engine peers such that each join engine peer may be dedicated to providing information about a specific data type or from a specific data source. Furthermore, wherein the join engine peer is a software process, it would have been obvious to one of ordinary skill in the art to have a software process comprised of multiple methods wherein each method would singularly be dedicated to a specific data type.

Allowable Subject Matter

25. **Claim 5** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Kim whose telephone number is (571) 272-2737. The examiner can normally be reached on M-F, 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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